

**WHAT IS CLAIMED IS:**

1. A malfunction management unit for a traffic control system for monitoring traffic control signals for a Red Fail fault in which no signal is active in a given channel, the malfunction management unit having input terminals for receiving control signals grouped in channels and used to operate the traffic control lights; monitoring means for detecting a Red Fail fault from the signals in the channels; and channel selection means for enabling a Red Fail test on a channel specific basis.
- 10 2. The invention of claim 1 wherein said malfunction management unit includes a manually settable switch for enabling and disabling said channel selection means.
- 15 3. The invention of claim 1 wherein said malfunction management unit includes a display for indicating whether a Red Fail fault has occurred in a selected channel.
4. The invention of claim 1 wherein said malfunction management unit includes an output for controlling the operation of an output relay used to transfer the operation of the traffic control lights to a flashing mode of operation when a Red Fail is detected in a selected channel.
- 20 5. A method of monitoring for Red Fail faults in a traffic control system for coordinated operation of a plurality of traffic control lights; the method comprising the steps of:
  - (a) providing a plurality of input terminals for receiving control signals grouped in channels and used to operate the traffic control lights;
  - 25 (b) specifying those channels for which a Red Fail test is to be performed; and
  - (c) monitoring the control signals in the specified channels for a Red Fail fault.
- 30 6. The method of claim 5 further including the step of controlling the operation of an output relay used to transfer the operation of the traffic control lights to a flashing mode of operation when a Red Fail fault is detected in a specified channel.

7. The method of claim 5 further including the step of providing a manually settable switch for enabling and disabling the specifying means.

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8. The method of claim 5 further including the step of providing a display for indicating whether a Red Fail fault has occurred in a specified channel.

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